

Abstract of the disclosure

[061] A radio operated data card whose outer jacket forms a sealed protected housing for internal electrical components, including an RFID integrated circuit which incorporates data storage and a radio frequency transceiver, and one or more on-card antenna structures. Manually operated electrical switching elements, or antenna structures which are responsive to the positioning of conductive members, such as the human hand, at particular locations on or near the surface of the card, are connected to the on-card electronic circuitry. The switching elements or antenna elements are selectively operated by the cardholder who manipulates the card in predetermined ways to generate data signals that may be used to activate the card, store data in the card, or transmit data to the reader. The switching elements and/or an adjacent conductive element may alter the resonant frequency, Q or gain of the antenna circuit, and these changes in the characteristics of the antenna circuit may be detected either on the card or at the reader to enable the cardholder to activate the card or enter data. Switching elements and/or antenna structures may be organized as a keypad or the like, and control signals created in response to the position or timing of touch events which characterize the cardholder's manipulation of the card.